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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,079	12/13/2004	Thomas Kagi SR.		3303

7590 08/18/2006
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EXAMINER

SUERETH, SARAH ELIZABETH

ART UNIT PAPER NUMBER

3749

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,079

Applicant(s)

KAGI, THOMAS

Examiner

Sarah Suereth

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/13/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claims 2-7 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must depend in the alternative only, and refer only to preceding claims. Also, a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits, as the scope of the claims cannot be ascertained. The lack of a prior art rejection should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (5156139) in view of Masin (6132203), further in view of Camp (5156098).

Wilson discloses:

- a. A pressurized fuel delivery mechanism (22);
- b. One or more oil preheaters (col. 6, lines 38-42) located within one or more preheater blocks (20) into which pressurized fuel for combustion flows from an outside source past one or more heating elements (col. 6, lines 38-42) which do not produce heat until the burner calls for heat (col. 5, lines 49-55);
- f. One or more cumulative air tanks that accept pressurized air from an outside source and gradually feeds the pressurized air into one or more air preheaters located within one or more preheater blocks (col. 5, lines 40-44);
- k. One or more air preheaters into which pressurized air for combustion flows past one or more air heating elements (20), at least one of which elements is warm at all times and one or more elements which are not heated until the burner calls for heat (col. 5, lines 49-55);
- l. A series of one or more heat conductive members connecting one or more of the air preheater elements with the external surface of the preheater (30);
- m. One or more nozzles (10) through which the preheated, pressurized oil and preheated pressurized air are transported, mixed and atomized into microscopic droplets of aerated oil (col. 5, lines 35,36);

n. One or more ignition devices in close proximity to the output end of the one or more atomization nozzles, capable of igniting the atomized fuel as it exits each nozzle (see "electrodes", col. 4, lines 58,59).

Wilson, as discussed above, discloses the invention as claimed with the exception of air and fuel pressure gauges, pressure regulators, supply valves, and a purging system for removing built up fuel in the nozzle.

Wilson discloses that for the sake of simplicity, conventional burner components are not described in the patent (col. 4, lines 53-63).

Masin discloses a fuel supply valve (36), and an air supply valve (34), that are obviously open while the burner is operating. Also, an air purging system is disclosed for blowing out residual oil left in the nozzle assembly, thereby minimizing unintended post-flame oil discharge from the nozzle (col. 7, lines 28-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Wilson apparatus with the Masin air purging system in order to purge carbonization from the burner nozzle (Masin, col. 7, lines 28-32).

As discussed above, the Wilson in view of Masin combination does not explicitly disclose using pressure gauges and pressure regulators to control the air and oil feeds into the burner.

Camp discloses oil and air pressure gauges (54) and pressure regulators for adjusting the pressure of the feeds coming into the oil burner (56).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Wilson in view of Masin apparatus with the Camp gauges and regulators in order to better modulate the amount of fuel and air supplied to the burner (Camp, col. 2, lines 66,67).

Conclusion

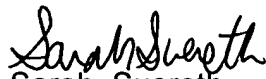
5. The prior art made of record on the attached form PTO-892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Suereth whose telephone number is (571) 272-9061. The examiner can normally be reached on Monday to Thursday 7:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sarah Suereth
Examiner
Art Unit 3749


JOSIAH C. COCKS
PRIMARY EXAMINER